

List of parties and counsel on signature pages.

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION**

VOIP-PAL.COM, INC., a Nevada  
corporation,

Plaintiff,

v.

TWITTER, INC., a Delaware corporation,

Defendant.

Case No. 18-cv-04523-LHK [Lead Case]

**DEFENDANTS' CONSOLIDATED  
NOTICE OF MOTION AND MOTION TO  
DISMISS PLAINTIFF'S COMPLAINT;  
MEMORANDUM OF POINTS AND  
AUTHORITIES IN SUPPORT**

**ORAL ARGUMENT REQUESTED**

**JURY TRIAL DEMANDED**

VOIP-PAL.COM, INC., a Nevada  
corporation,

Plaintiff,

v.

CELLCO PARTNERSHIP d/b/a/ Verizon  
Wireless, a Delaware corporation

Defendant.

Date: March 21, 2019

Time: 1:30 p.m.

Courtroom: 8 - 4th Floor

Judge Lucy H. Koh

*[Proposed Order filed concurrently herewith]*

Case No. 18-cv-06054-LHK

1 VOIP-PAL.COM, INC., a Nevada  
2 corporation,

3 Plaintiff,

4 v.

5 AT&T CORP, a Delaware corporation,

6 Defendant.

Case No. 3:18-cv-06177-LHK

7  
8 VOIP-PAL.COM, INC., a Nevada  
9 corporation,

10 Plaintiff,

11 v.

12 APPLE INC., a California corporation,

13 Defendant.

Case No. 3:18-cv-06217-LHK

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**NOTICE OF MOTION AND MOTION TO DISMISS**

TO ALL PARTIES AND THEIR COUNSEL OF RECORD:

PLEASE TAKE NOTICE THAT, on March 21, 2019, at 1:30 p.m., before the Honorable Lucy H. Koh, at the San Jose Courthouse, 280 South 1st Street, San Jose, CA 95113, Courtroom 8, 4th Floor, Defendants Twitter, Inc. (“Twitter”); Cellco Partnership (“Verizon”); AT&T Corp (“AT&T”); and Apple Inc. (“Apple”) will and do hereby move under Federal Rule of Civil Procedure 12(b)(6) to dismiss with prejudice plaintiff VoIP-Pal.com, Inc.’s (“VoIP-Pal”) Complaints for failure to state a claim upon which relief may be granted.<sup>1</sup>

As explained in the attached Memorandum of Points and Authorities, VoIP-Pal’s claims of patent infringement against Defendants should be dismissed because all asserted claims of U.S. Patents 8,542,815 and 9,179,005 (the “’815 patent” and “’005 patent”; collectively, “the Asserted Patents”) are invalid under 35 U.S.C. § 101 for claiming patent ineligible subject matter.

The Motion is based on this Notice of Motion and Motion, and the Memorandum of Points and Authorities filed herewith, the pleadings, papers, and entire record herein, oral argument in this matter, and upon such other matters as may be presented to the Court at or before the hearing on this Motion.

**MEMORANDUM OF POINTS AND AUTHORITIES**

**I. INTRODUCTION**

Call-routing functionality and processes have existed for over a century. District courts and the Federal Circuit have found numerous call-routing and telephony claims to be directed to patent ineligible subject matter, and VoIP-Pal’s patents fare no better. The asserted claims of the ’815 and ’005 patents fail the test for patent eligibility under *Alice*. The claims are directed to abstract communication-routing, and they do not set forth an inventive concept that transforms the underlying abstract idea into a patent-eligible application. The claims instead recite generic computer implementations of routing functionality. Indeed, the claims are written in such

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<sup>1</sup> For defendant Twitter, the First Amended Complaint, filed November 15, 2018. For defendant Verizon, the Third Amended Complaint, filed November 15, 2018. For defendant AT&T, the Third Amended Complaint, filed November 15, 2018. For defendant Apple, the Second Amended Complaint, filed May 4, 2016, in the District of Nevada, prior to transfer to this Court.



1 sweeping, results-oriented language that VoIP-Pal contends its patents “are utilized *nearly every*  
 2 *time a call is placed.*” *E.g.*, AT&T ECF No. 3-21 at 2 (emphasis added).

3 The asserted claims fall into two groups with minor differences—one pertaining to routing  
 4 as between two networks (“multi-network claims”), and one pertaining to routing as between two  
 5 portions of a network (“single-network claims”). The multi-network claims<sup>2</sup> involve determining  
 6 where to route a call as between two networks based on information about the caller and callee.  
 7 The single-network claims<sup>3</sup> involve determining where to route a communication as between two  
 8 portions of a network based on information about the participants to the communication. All of the  
 9 asserted claims therefore are directed to the abstract idea of *determining where to route a*  
 10 *communication as between two [networks/network portions] using information about the*  
 11 *participants*. Although the claims fall into two groups directed to similar abstract concepts, the  
 12 minor differences between those two concepts do not substantively affect the analysis under  
 13 Section 101.

14 All asserted claims are directed to an abstract idea for multiple reasons. First, the character  
 15 of each claim as a whole is directed to gathering and processing information: gathering information  
 16 (“identifiers” and “attributes”) about the participants to the communication and processing it to  
 17 generate a “routing message” identifying where to route a communication. Second, the claims have  
 18 a clear pre-computerized “brick and mortar” analogy: human telephone operators throughout the  
 19 20<sup>th</sup> century used switchboards to route calls based on information about the participants to the call.  
 20 Call routing between and within networks (*e.g.*, private corporate phone networks, local public  
 21 phone networks, and long-distance public phone networks) has existed since nearly the advent of  
 22 telephony. Third, the claims merely computerize a process that could be carried out by a person  
 23 mentally or with a pen and paper. Fourth, the claims are not directed to an improvement in  
 24 computer technology itself—rather, computers are recited as tools to carry out the underlying  
 25 abstract idea.

26  
 27 <sup>2</sup> Asserted claims 1, 7, 12, 27, 28, 72, 73, 92, and 111 of the ’815 patent and claims 49 and 73 of  
 28 the ’005 patent.

<sup>3</sup> Asserted claims 74, 75, 77, 78, 83, 84, 94, 96, and 99 of the ’005 patent.

Moreover, when the elements of the asserted claims are considered individually or as an ordered combination, they do not include any inventive concept that transforms the abstract idea into a patent-eligible invention. The individual claim limitations specify well-understood, routine, and conventional functions: analyzing participant information (*e.g.*, of the caller and callee) to make a routing decision, determining where to route the communication (*e.g.*, classifying the call), and communicating the decision to whatever device will route the communication. The asserted claims are written almost entirely in functional language. To the extent they refer to tangible elements, they use generic, functional terms such as a “call controller” or a “gateway.” Limiting the abstract idea to a particular technological environment—*e.g.*, telephony or other communications networks—is not sufficient to conjure an inventive concept. As a result, there are no disputed issues of fact that prevent resolution at the pleading stage.

As numerous Federal Circuit and district court opinions have recognized, claims such as VoIP-Pal’s that are directed to the idea of gathering, classifying, and outputting communications information and that use computers as mere tools to carry out that idea are invalid under Section 101.

## II. PROCEDURAL BACKGROUND

These related actions began in 2016 in the District of Nevada. In 2016 and 2017, third party Unified Patents and defendants Apple and AT&T filed *inter partes* review (“IPR”) petitions against the Asserted Patents.<sup>4</sup> Defendants Twitter and Verizon did not participate in the IPRs. Two of Apple’s petitions were instituted and resulted in final written decisions, finding that Apple did not show by a preponderance of the evidence that the challenged claims were anticipated or rendered obvious by the prior art cited in those petitions. But the PTAB has now granted-in-part Apple’s Motion for Sanctions due to VoIP-Pal’s improper *ex parte* communications to the PTAB during the IPR proceedings and authorized Apple to file requests for rehearing regarding those petitions.

On August 9, 2018, Verizon and AT&T filed Motions to Dismiss the Amended Complaint under 35 U.S.C. § 101, but the motions were not fully briefed, and the District of Nevada did not

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<sup>4</sup> Subject-matter eligibility challenges under Section 101 may not be raised in IPRs, so patent eligibility was not at issue in the IPR proceedings. *See* 35 U.S.C. §§ 311(b), 315(e)(2).

rule on those motions. All of the present actions were transferred to this District between August and November of 2018 and consolidated for pretrial purposes.

### III. STATEMENT OF THE RELEVANT FACTS

#### A. Specification of the Asserted Patents

Both of the Asserted Patents are titled “Producing Routing Messages For Voice Over IP Communications.” The ’005 patent is a continuation of the ’815 patent, and the two asserted patents share a common specification.<sup>5</sup>

Plaintiff alleges that the Defendants infringe the Asserted Patents by offering Voice-over-IP (“VoIP”) and other communication services. *E.g.*, AT&T ECF No. 59 ¶ 41. VoIP generally involves sending telephone calls over an Internet Protocol (“IP”) network, such as the Internet and other digital networks. ’005 patent at 1:20-26. In these patents, however, VoIP-Pal does not claim to have invented VoIP systems or routing of calls or other communications. For example, the “Background of the Invention” section of the specification discusses preexisting VoIP systems and the routing of calls to public networks (*e.g.*, public switched telephone network (“PSTN”)) and private networks (*e.g.*, of a large organization). *Id.* at 1:20-33. IP telephony switches installed within the IP network enabled voice calls to be made within or between IP networks, and between an IP network and a switched circuit network (“SCN”), such as the PSTN. *Id.*

The specification describes a process for operating a call “routing controller” to facilitate communication between callers and callees. *E.g.*, *id.* at Fig. 1, 1:55-2:2. The routing controller checks the information in a dialing profile retrieved from a database to classify the call as directed to a public or private network. *E.g.*, *id.* at 3:54-5:8, 11:5-6, 17:25-20:35, 22:58-61, Fig. 8B. The dialing profiles include information such as the user name, domain, national dialing digits, international dialing digits, and country code. *E.g.*, *id.* at 4:6-38, 18:1-19:11, Figs. 9-12. The routing controller generates a “routing message” that contains information about the classification and routing of the call, and sends the routing message to a “call controller.” *E.g.*, *id.* at 1:61-3:53, 5:9-6:33, 20:36-23:3 (subscriber-to-subscriber calls between different nodes), 23:4-25:12

<sup>5</sup> For simplicity, this Motion cites the specification of the ’005 patent.

(subscriber to non-subscriber calls), 25:13-26:57 (subscriber-to-subscriber calls within the same node), Figs. 15, 16, 25, 32 (showing routing messages). The specification provides an example of a “generic” routing message. *Id.* at 21:4, Fig. 15. The call controller receives the routing message as a request to establish a call. *E.g., id.* at 2:3-5, 26:58-27:60.

If a call is classified as a public network call, the call is routed to a “gateway” to the PSTN. The specification describes a gateway in general and functional terms as a piece of networking hardware used by well-known communications suppliers such as Sprint, Telus, and Shaw to provide a communications path to the PSTN—*e.g.*, to carry audio to the call recipient. *E.g., id.* at Fig. 1 (item 20), 1:67-2:2, 3:67-4:2, 14:25-31, 16:4-27, 21:12-14, 24:66-25:4, 27:10-35.

The call controller and routing controller are described in generic computer terms as items that “may be implemented as separate modules on a common computer system or by separate computers, for example.” *Id.* at 13:20-22. The call controller includes generic computer components: a microprocessor, program memory, and an I/O port. *E.g., id.* at 16:4-17:13, Fig. 4. The specification explains that “[t]he program memory 104 includes blocks of code for directing microprocessor 102 to carry out various functions of the call controller 14.” *Id.* at 16:36-38. It also explains that the routing controller includes generic computer components: a processor, program memory, a table memory, buffer memory, and an I/O port. *E.g., id.* at 17:25-53, Fig. 7. As with the call controller, the specification explains that “[t]he program memory 204 includes blocks of codes for directing the processor 202 to carry out various functions of the [routing controller] (16).” *E.g., id.* at 17:47-49.

The specification purports to describe a shortcoming in the prior art: “Existing VoIP systems do not allow for high availability and resiliency in delivering Voice Over IP based Session Initiation Protocol (SIP) Protocol service over a geographically dispersed area such as a city, region or continent.” *Id.* at 1:45-48. However, the language of the Asserted Claims do not reflect any function, structure, or other element purporting to solve that problem.

#### **B. Asserted Claims of the ’815 and ’005 Patents**

VoIP-Pal asserts the following claims (*e.g.*, AT&T ECF No. 61):

- ’815 patent claims 1, 7, 12, 27, 28, 72, 73, 92, and 111 against Verizon, AT&T, and

Apple (the '815 patent is not asserted against Twitter); and

- '005 patent claims 49, 73, 74, 75, 77, 78, 83, 84, 94, 96, and 99 against all Defendants.

The claims fall into two groups: (1) multi-network claims,<sup>6</sup> and (2) single-network claims.<sup>7</sup>

The difference between these two groups of claims is immaterial to the patent-eligibility analysis, as there is no inventive distinction based on the difference between routing to whatever one may characterize as two portions of one network versus two different networks.

The multi-network claims relate to determining how to route a “call” to a public network or a private network by comparing information about the caller to information about the callee and then classifying the call based on that comparison. For example, claim 1 of the '815 patent states:

1. A process for operating a call routing controller to facilitate communication between callers and callees in a system comprising a plurality of nodes with which callers and callees are associated, the process comprising:

in response to initiation of a call by a calling subscriber, receiving a caller identifier and a callee identifier;

locating a caller dialing profile comprising a username associated with the caller and a plurality of calling attributes associated with the caller;

determining a match when at least one of said calling attributes matches at least a portion of said callee identifier;

classifying the call as a public network call when said match meets public network classification criteria and classifying the call as a private network call when said match meets private network classification criteria;

when the call is classified as a private network call, producing a private network routing message for receipt by a call controller, said private network routing message identifying an address, on the private network, associated with the callee;

when the call is classified as a public network call, producing a public network routing message for receipt by the call controller, said public network routing message identifying a gateway to the public network.

The single-network claims relate to determining how to route “communications” to a portion of a network by comparing information about one participant to information about another participant and then classifying the communication based on that comparison. For example,

<sup>6</sup> Claims 1, 7, 12, 27, 28, 72, 73, 92, and 111 of the '815 patent and claims 49 and 73 of the '005 patent.

<sup>7</sup> Claims 74, 75, 77, 78, 83, 84, 94, 96, and 99 of the '005 patent.

claim 74 of the '005 patent states:

74. A method of routing communications in a packet switched network in which a first participant identifier is associated with a first participant and a second participant identifier is associated with a second participant in a communication, the method comprising:

after the first participant has accessed the packet switched network to initiate the communication, using the first participant identifier to locate a first participant profile comprising a plurality of attributes associated with the first participant;

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a first network classification criterion, producing a first network routing message for receipt by a controller, the first network routing message identifying an address in a first portion of the packet switched network, the address being associated with the second participant, the first portion being controlled by an entity; and

when at least one of the first participant attributes and at least a portion of the second participant identifier meet a second network classification criterion, producing a second network routing message for receipt by the controller, the second network routing message identifying an address in a second portion of the packet switched network, the second portion not controlled by the entity.

#### IV. LEGAL STANDARDS

##### A. Motion to Dismiss for Invalidity under 35 U.S.C. § 101

Pursuant to Federal Rule of Civil Procedure 12(b)(6), a defendant may move to dismiss an action for failure to allege “enough facts to state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). For purposes of ruling on a Rule 12(b)(6) motion, the Court “accept[s] factual allegations in the complaint as true and construe[s] the pleadings in the light most favorable to the nonmoving party.” *Manzarek v. St. Paul Fire & Marine Ins. Co.*, 519 F.3d 1025, 1031 (9th Cir. 2008). Nonetheless, the Court is not required to “assume the truth of legal conclusions merely because they are cast in the form of factual allegations.” *Fayer v. Vaughn*, 649 F.3d 1061, 1064 (9th Cir. 2011) (quotation omitted).

The Federal Circuit has “repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion.” *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373-74 (Fed. Cir. 2016); *see, e.g., Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 912 (Fed. Cir. 2017); *Content Extraction & Transmission*

1 *LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1345 (Fed. Cir. 2014). The ultimate  
 2 question, whether a claim recites patent-eligible subject matter under Section 101, is a question of  
 3 law based on underlying facts, such as whether a claim element is well-understood, routine, and  
 4 conventional. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368-69 (Fed. Cir. 2018). Nevertheless,  
 5 dismissal on Section 101 grounds remains appropriate where there are no disputed facts material to  
 6 patent eligibility. *See, e.g., Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1355, 1342 n.4 (Fed.  
 7 Cir. 2018); *SAP Am., Inc. v. Investpic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018); *Automated*  
 8 *Tracking Sols., LLC v. Coca-Cola Co.*, 723 F. App’x 989, 995 (Fed. Cir. 2018). “In a situation  
 9 where the specification admits the additional claim elements are well-understood, routine, and  
 10 conventional, it will be difficult, if not impossible, for a patentee to show a genuine dispute.” *Aatrix*  
 11 *Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1356 (Fed. Cir. 2018).

## 12 **B. Patent Eligibility under 35 U.S.C. § 101**

13 Section 101 broadly defines patent-eligible subject matter and “contains an important  
 14 implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.”  
 15 *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (citation omitted). The  
 16 “concern that undergirds our § 101 jurisprudence” is preemption. *Id.* at 2358. Thus, a claim is not  
 17 patent-eligible when the claim is so abstract that it “would effectively grant a monopoly over an  
 18 abstract idea.” *Bilski v. Kappos*, 561 U.S. 593, 612 (2010).

19 As specified in *Alice*, the patent-eligibility analysis proceeds in two steps. In *Alice* step one,  
 20 the court “determine[s] whether the claims at issue are directed to a patent-ineligible concept,” such  
 21 as an abstract idea. *Alice*, 134 S. Ct. at 2355. Then, in *Alice* step two, a patent directed to an  
 22 abstract idea is invalid unless the claims recite an “‘inventive concept’—*i.e.*, an element or  
 23 combination of elements that is ‘sufficient to ensure that the patent in practice amounts to  
 24 significantly’ more than a patent upon the [ineligible concept] itself.” *Id.*

### 25 **1. Alice Step One: Whether the Claims Are Directed to an Abstract Idea**

26 To evaluate whether particular claims are directed to a patent-ineligible abstract idea, courts  
 27 often begin by “compar[ing] claims at issue to those claims already found to be directed to an  
 28 abstract idea in previous cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir.



2016). The Federal Circuit has generally found claims abstract where they are directed to some combination of acquiring information, analyzing information, and/or displaying the results of that analysis. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016).

Courts further consider whether the claims are, in essence, directed to a mental process or a process that could be performed with pen and paper. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1147 (Fed. Cir. 2016) (claims for translating a functional description of a logic circuit into a hardware component description of the logic circuit); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (claim for verifying the validity of a credit card transaction over the Internet); *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (claims for computer-implemented system to enable borrowers to shop for loan packages anonymously). Another factor is whether the claims cover a “fundamental . . . practice long prevalent in our system,” which suggests that the patent claims an ineligible abstract idea. *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (quoting *Alice*, 134 S. Ct. at 2356); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016) (claims for routing email compared to a “brick-and-mortar” post office and a corporate mailroom). Additionally, courts consider whether the claims “purport to improve the functioning of the computer itself,” *Alice*, 134 S. Ct. at 2359, or whether “computers are invoked merely as a tool” to carry out an abstract process, *Enfish*, 822 F.3d at 1336.

## 2. *Alice* Step Two: Whether the Claims Contain an Inventive Concept

The second step of the *Alice* framework asks whether the claim contains an element or combination of elements that “ensure[s] that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself.” 134 S. Ct. at 2355 (citation omitted). Transforming an abstract idea to a patent-eligible application of the idea requires more than simply reciting the idea followed by “apply it.” *Id.* at 2357 (citation omitted). “For the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction*, 776 F.3d at 1347-48 (alteration in original) (quoting *Alice*, 134 S. Ct. at 2359). Thus, attempts “to limit the use of the abstract idea to a



particular technological environment” are insufficient to render an abstract idea patent-eligible. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (internal quotation marks and citation omitted); *Capital One Bank*, 792 F.3d at 1366 (“An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet.”).

Claims “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” can be sufficiently transformative to supply an inventive concept. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014); *see id.* at 1248, 1259. In addition, a “non-conventional and non-generic arrangement of known, conventional pieces” can amount to an inventive concept. *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).

## **V. THE ASSERTED CLAIMS LACK PATENT-ELIGIBLE SUBJECT MATTER**

All asserted claims of the ’815 and ’005 patents are invalid under Section 101. Each claim is directed to abstract routing functionality based on classifying a communication to determine where the communication should be routed as between two networks or as between two portions of a network. Call routing is a century-old technology that has long been performed by humans and switchboard equipment. That certain claims limit the technological environment to “the Internet” or “voice-over-IP” fails to transform the abstract idea into a patent eligible concept. Nor does the fact that some claims are written as means-plus-function claims render those claims patent eligible because the specification makes clear that the means to accomplish the claimed functions are merely generic computer components. Further, no individual element or combination of elements breathes an inventive concept into the claims, as the claims involve generic steps or components arranged in a routine way, such as analyzing participant information stored in a memory or database before determining where to route a communication based on the information.

### **A. Representative Claims**

A representative claim is one that is “substantially similar and linked to the same abstract idea.” *E.g., Content Extraction*, 776 F.3d at 1348 (citation omitted). As such, all asserted claims that embody the same abstract idea should “rise or fall together.” *Accenture Global Servs.,*

*GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013). Here, a representative claim exists for each of the two groups of claims—the multi-network claims and the single-network claims.

**1. Claim 1 of the '815 Patent Is Representative of the Multi-Network Claims.**

Claim 1 of the '815 patent is representative of at least the multi-network claims because these claims are all substantively similar and are all directed to the same abstract idea: *determining where to route a communication as between two [networks] using information about the participants*. Independent claims 26 and 50 of the '005 patent claim apparatuses that include essentially the same limitations as representative claim 1 of the '815 patent, which is a method claim.<sup>8</sup> Similarly, claims 27, 28, 54, 73, 74, and 93 of the '815 patent claim non-transitory computer-readable media, apparatuses, and a process that also include essentially the same limitations as claim 1 of the '815 patent.<sup>9</sup> Dependent claims 7, 12, 72, 92, and 111 of the '815 patent and dependent claims 49 and 73 of the '005 patent add further steps for manipulating or conveying intangible information that are immaterial for purposes of assessing patent eligibility—that is, communicating the routing message to a call controller ('815 claims 72, 92, 111; '005 claims 49 and 73), formatting the callee identifier ('815 claim 7), and classifying a call as a private network call when the callee is a subscriber to the private network ('815 claim 12). Such limitations are immaterial for purposes of assessing patent eligibility. *See Affinity Labs. of Tex., LLC v. DirecTV, LLC*, 838 F.3d 1235, 1261 (Fed. Cir. 2016) (describing claims reciting “the conveyance and manipulation of information” as ineligible due to abstractness).

**2. Claim 74 of the '005 Patent Is Representative of the Single-Network Claims.**

Claim 74 of the '005 patent is representative of at least the single network claims because these claims are all substantially similar in substance and are all directed to the same abstract idea: *determining where to route a communication as between two [network portions] using*

<sup>8</sup> Claims 26 and 50 of the '005 patent are not asserted but are incorporated by reference into asserted dependent claims 49 and 73 of the '005 patent, respectively.

<sup>9</sup> Claims 54, 74, and 93 of the '815 patent are not asserted but are incorporated by reference into asserted dependent claims 72, 73, 92, and 111 of the '815 patent.

*information about the participants*. Claim 74 is a method claim. Independent claims 94 and 99 recite a system and a computer readable medium, respectively. But all three comprise functional elements and include essentially the same substantive limitations. Dependent claims 75, 77, 78, 83, 84, and 96 add elements limiting the claims to particular technological environments—specifying that the network comprises or is accessible via the Internet (claims 75, 84, 96), and that the communication comprises “voice-over-IP” (’005 claim 78)—as well as limitations on the information to be compared (claims 77, 83). Such variations are immaterial for purposes of assessing patent eligibility. *See Capital One Bank*, 792 F.3d at 1366 (“An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet [or a computer].”).

**B. *Alice* Step One: The Asserted Claims Are Directed to an Abstract Idea**

All of the asserted claims are directed to the abstract idea of determining where to route a communication as between two [networks/network portions] using information about the participants. These claims are abstract because: (1) they are written in a form free of specific tangible implementation and merely invoke computers as a tool; (2) they are similar to claims found directed to abstract ideas in precedent from the Federal Circuit and district courts; (3) they are directed to functions that could be performed in the human mind or with pen and paper; (4) they are akin to long-standing human activity (switchboard operations); and (5) they are not directed to improving the functioning of a computer itself.

VoIP-Pal’s claims amount to “a drafting effort designed to monopolize the [abstract idea]” of deciding of how to route a call or other communication using information about the participants. *See Alice*, 134 S. Ct. at 2357. In fact, VoIP-Pal contends that the Asserted Patents are fundamental not only to VoIP services, but also to “almost all cellular and WiFi voice and message communications” and “are *utilized nearly every time a call is placed*.” AT&T ECF No. 3-21 at 1-2 (emphasis added). If VoIP-Pal’s allegations are credited, the Asserted Patents “have the potential to disrupt, or even derail, large swaths of online communication,” which is a “‘basic tool’ of modern life.” *See Symantec*, 838 F.3d at 1322 (Mayer, J., concurring) (internal quotation and citations omitted). *Alice* precludes such a result.

1                               **1.     The Asserted Claims Lack Specific Tangible Implementation and**  
 2                               **Invoke Computers Merely as Tools to Implement the Abstract Idea.**

3               Claim 1 of the '815 patent (representative of multi-network claims) involves the steps of  
 4 (1) receiving “a caller identifier and a callee identifier” (2) locating a “caller dialing profile”  
 5 (3) determining a match between information in the “dialing profile” and the callee identifier,  
 6 (4) classifying the call as a public network call or a private network call based on “classification  
 7 criteria,” and (5) producing a “private network routing message” or a “public network routing  
 8 message” depending on the classification.

9               Claim 74 of the '005 patent (representative of single-network claims) involves the steps of  
 10 (1) using a participant “identifier” to locate a “first participant profile” containing information  
 11 about the first participant, who initiates a communication to a second participant, (2) when at least  
 12 some information about the first participant (“first participant attributes”) and at least a portion of  
 13 a “second participant identifier” satisfy a criterion, producing a “first network routing message” for  
 14 receipt by a controller, and (3) when at least some information about the first participant and at  
 15 least a portion of the second participant identifier satisfy another criterion, producing a “second  
 16 network routing message” for receipt by a controller. The first network routing message identifies  
 17 an address in a first portion of the network that is controlled by an “entity,” and the second network  
 18 routing message identifies an address in a second portion of the network that is not controlled by  
 19 the “entity.”

20               In each case, the focus of the claims is obtaining and analyzing participant information to  
 21 determine where to route a communication, recited using high-level, generalized terms. The data-  
 22 gathering steps use generic participant “identifiers” (*e.g.*, a telephone number or user name ('005  
 23 patent at 14:57-58, 17:22-24)) to locate participant “profile” information comprising “calling  
 24 attributes” associated with a participant. As broadly stated in the specification, “the dialing profile  
 25 is a record identifying calling attributes of the caller identified by the caller identifier.” *Id.* at 18:10-  
 26 11; *see id.* at 18:1-9, 25:19-20, Figs. 9-12 (describing “exemplary” profile information that “may  
 27 be” used in routing determinations). After obtaining the participant information, the claims recite  
 28

1 steps for assessing that information to determine which of two routing options should apply.  
 2 Claim 1 of the '815 patent recites “classifying” the call between networks based on participant  
 3 information to determine where to route the call; claim 74 of the '005 patent involves comparing  
 4 participant information to a classification criterion to determine where to route the communication.  
 5 In each case, the result of the routing determination is producing more information—a “routing  
 6 message” that is received by a generic controller as a request to establish a call. *Id.* at 2:3-5, 26:58-  
 7 27:60, 21:4-22, 16:5-30.

8 In short, analyzing the claims’ “character as a whole,” *see Enfish*, 822 F.3d at 1335, reveals  
 9 that they are directed to determining where to route a communication as between two  
 10 [networks/network portions] using information about the participants. That is a well-known  
 11 concept nearly as old as the advent of telephony itself. And the claims are expressed with “no  
 12 particular concrete or tangible form.” *Ultramercial*, 772 F.3d at 715. To the extent they mention  
 13 tangible elements at all, such as a “call controller” or “gateway,” they are merely invoked as tools  
 14 to receive the output (“routing message”) of the information analysis, a telltale sign that the claims  
 15 are directed to an abstract idea. *See Enfish*, 822 F.3d at 1335-36.

16 In addition, the representative claims are written in functional language. Claim 1 of the  
 17 '815 patent recites steps of “receiving” identifiers, “locating” dialing profiles, “determining” a  
 18 match, “classifying” calls, and “producing” routing messages, but does not specify a particular,  
 19 non-abstract, way of performing these functions. And claim 74 of the '005 patent recites steps of  
 20 “using” an identifier to “locate” a participant profile, “producing” a network routing message when  
 21 a network classification criterion is met, and “identifying” an address associated with the recipient.  
 22 Such results-based, functional language suggests that the claims are drawn to the abstract idea,  
 23 doing no more than describing a desired function or outcome. *See Two-Way Media Ltd. v. Comcast*  
 24 *Cable Commc’ns, LLC*, 874 F.3d 1329, 1337-38 (Fed. Cir. 2017) (“[A claimed] method for routing  
 25 information using result-based functional language . . . requires the functional results of  
 26 ‘converting,’ ‘routing,’ ‘controlling,’ ‘monitoring,’ and ‘accumulating records’ but does not  
 27 sufficiently describe how to achieve these results in a non-abstract way.”).

2. **Courts Have Held Similar Claims Directed to Acquiring, Analyzing, and Presenting Information Abstract at Alice Step One.**

VoIP-Pal’s claims are similar to claims that the Federal Circuit and district courts have found to be directed to abstract ideas. For example, *Symantec* involved claims directed to “receiving e-mail (and other data files) identifiers, characterizing e-mail based on the identifiers, and communicating the characterization”—in other words, classifying email based on criteria applied to identified information. 838 F.3d at 1313. The Federal Circuit held that classifying mail and routing it into categories (junk or not junk) was a long-standing process that the plaintiff was simply attempting to patent in a computer network environment. “[M]erely appl[ying] a well-known idea using generic computers ‘to the particular technological environment of the Internet’” did not rescue the claims from being directed to an abstract idea under Section 101. *Id.* at 1314.

Similarly, *Electric Power Group* involved claims for collecting information about the operation of an electric power grid, detecting and analyzing events from that information, displaying the results of the analysis, and deriving an indicator of reliability. 830 F.3d at 1351-52. The Federal Circuit held that the claims were directed to an abstract idea because the claims turned on collecting and manipulating intangible information, and the purported advance was merely “gathering and analyzing information of a specified content, then displaying the results, and not any particular asserted inventive technology for performing those functions.” *Id.* at 1353-54.

Likewise, in *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089 (Fed. Cir. 2016), the Federal Circuit considered claims to detecting fraudulent access to health records. There, the steps included collecting information regarding instances of access of a patient’s health information, analyzing the information according to one of several rules to determine if the information indicated improper access, and providing output information in the form of a notification if determined that improper access had occurred. *Id.* at 1093. The court concluded that the claims were directed to an abstract idea because the claims were directed to a combination of “abstract-idea categories”: “collecting information, including when limited to particular content,” “analyzing information,” and “presenting the results of abstract processes of collecting and

analyzing information.” *Id.* at 1093-94 (internal quotations omitted); *see SAP Am., Inc.*, 898 F.3d at 1167-68 (“The focus of the claims . . . is on selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis. That is all abstract.”); *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (claims found to be “directed to the abstract idea of classifying and storing digital images in an organized manner”).

This Court and other district courts have similarly found claims regarding gathering, analyzing, and manipulating information, including call-related information, to be directed to abstract ideas. *See, e.g., 24/7 Customer, Inc. v. LivePerson, Inc.*, Case No. 15-cv-02897-JST, 2017 WL 2311272, at \*3 (N.D. Cal. May 25, 2017) (granting Rule 12(c) motion and invalidating claims directed to “routing a call to a customer service agent based on information about the caller”); *Immersion Corp. v. Fitbit, Inc.*, 313 F. Supp. 3d 1005, 1027-29 (N.D. Cal. 2018) (claims directed to abstract idea of receiving sensor and data signals, analyzing those signals, and outputting other signals in response); *Pragmatus Telecom, LLC v. Genesys Telecomms. Labs., Inc.*, 114 F. Supp. 3d 192, 200 (D. Del. 2015) (invalidating claims to “connecting customers to call centers”); *Telinit Techs., LLC v. Alteva, Inc.*, No. 2:14-CV-369, 2015 WL 5578604, at \*16 (E.D. Tex. Sept. 21, 2015) (invalidating claims to monitoring and connecting phone calls); *Parus Holdings, Inc. v. Sallie Mae Bank*, 137 F. Supp. 3d 660, 672 (D. Del. 2015) (invalidating claims “focuse[d] on the automated tasks of (1) receiving messages via a phone or Internet connection and then transmitting those messages to a subscriber by phone or Internet; and (2) receiving a message from a subscriber by phone or Internet and then forwarding that message based on rules established by the subscriber”), *aff’d*, 677 F. App’x 682 (Fed. Cir. 2017) (nonprecedential); *Broadsoft, Inc. v. Callwave Commc’ns, LLC*, 282 F. Supp. 3d 771, 784-85 (D. Del. 2017) (invalidating claims directed to the abstract idea of “storing data in a database, looking up data from that database in response to the initiation of a phone call, and inserting at least a portion of that data in the already-existing callerID field”), *aff’d*, 739 F. App’x 985 (Fed. Cir. 2018).

The asserted claims of the ’815 and ’005 patents are similarly directed to an abstract idea because they call for acquiring and analyzing intangible information to determine where a



1 communication should be routed.

2 **3. The Asserted Claims Have a Clear Analogy to Longstanding**  
 3 **Telephone Switchboard Operations.**

4 All asserted claims are directed to an abstract idea that has a clear “brick and mortar” analog.  
 5 Since the early days of telephony, human operators using switchboards have determined (1) where  
 6 to route a call as between two networks based on information about the caller and callee (claim 1  
 7 of the ’815 patent), and (2) where to route a communication as between two portions of a network  
 8 based on information about the two participants to the communication (claim 74 of the ’005 patent).  
 9 Telephone companies originally used manual switchboards, and switchboard operators connected  
 10 calls by inserting a pair of phone plugs into the appropriate jacks.<sup>10</sup> Switchboard operators  
 11 determined where a call should be routed using relevant caller and callee attributes (*e.g.*, phone  
 12 numbers, area codes, or international dialing codes), which could be memorized or recorded in a  
 13 manual and referenced when moving phone plugs into jacks of switchboards. Such “fundamental  
 14 economic practice[s] long prevalent in our system of commerce,” including “longstanding  
 15 commercial practice[s]” and “method[s] of organizing human activity” are not patent-eligible.  
 16 *Alice*, 134 S. Ct. at 2356.

17 For example, the Federal Circuit found in a similar case that claims directed to analyzing  
 18 and characterizing email had an obvious non-computerized brick and mortar analog—people  
 19 sorting through their postal mail. *Symantec*, 838 F.3d at 1311, 1314. As another example, in  
 20 *Telinit*, the representative claim had five elements that required: “(1) receiving a data network  
 21 request; (2) identifying a telephone number associated with that request; (3) signaling a switch to  
 22 make a call; (4) monitoring the call; and (5) providing a user with notifications if there is a change

23  
 24 <sup>10</sup> The Court may take judicial notice of common sense and well-known historical facts, such as  
 25 the fact that switchboard operators routed calls, *e.g.*, local and long-distance calls. *See buySAFE,*  
 26 *Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (affirming Rule 12(c) motion under  
 27 Section 101 and referencing 1927 text in holding that claimed concept was “beyond question of  
 28 ancient lineage”); *Affinity Labs of Tex., LLC v. DirecTV, LLC*, 109 F. Supp. 3d 916, 926 (W.D.  
 Tex. 2015) (collecting cases where Federal Circuit has made historical observations on  
 Rule 12(b)(6) motions and holding that “taking judicial notice of well-known, general historical  
 observations was not error”), *aff’d*, 838 F.3d 1253 (Fed. Cir. 2016); Fed. R. Evid. 201(b). However,  
 VoIP-Pal’s claims are directed to an abstract idea regardless of whether the Court finds it  
 appropriate to take judicial notice of telephone switchboard operations.



1 in status of the call.” 2015 WL 5578604, at \*16. The court found that the claim “describes a well-  
 2 known and widely-understood concept—making a telephone call—and then applies that concept  
 3 to the Internet using conventional computer components as an intermediary to place and monitor  
 4 the telephone calls.” *Id.* The court observed that the claim involved a computer to carry out  
 5 “precisely the function of a telephone operator.” *Id.* It also concluded that the claim was directed  
 6 to an abstract idea despite the presence of computer-related elements such as a generic call  
 7 “processor” and generic “networks.” *Id.*

8 Similarly, VoIP-Pal’s asserted claims do not recite anything beyond the abstract routing  
 9 determinations previously carried out via brick-and-mortar switchboard operations with generic  
 10 computer implementation, further confirming the abstract nature of the claims. Nor does the fact  
 11 that some claims simply recast the elements from the method claims as “means-plus-function”  
 12 format without adding new features make them any less directed to the same abstract idea because  
 13 the specification acknowledges that the structure for the means-plus-function elements corresponds  
 14 to generic computer components, as discussed in Section III.A. *See Procter & Gamble Co. v.*  
 15 *QuantifiCare Inc.*, 288 F. Supp. 3d 1002, 1030 (N.D. Cal. 2017) (holding that a means-plus-  
 16 function claim was patent ineligible on a motion to dismiss because the specification’s description  
 17 of the underlying elements was directed to an abstract idea). Therefore, the claims recite nothing  
 18 more than long-standing brick and mortar practices.

#### 19 **4. The Asserted Claims Are Directed to Steps That Can Be Carried Out** 20 **Mentally or with Pen and Paper.**

21 The steps of the asserted claims could be performed in the human mind or by a person with  
 22 a pen and paper to achieve the same result of determining where a communication should be routed  
 23 based on information about the participants. Claims directed to a method that can be performed  
 24 mentally or with pen and paper—such as these—are abstract. *Synopsys*, 839 F.3d at 1146;  
 25 *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011).

26 More specifically, the claimed collection and use of one type of data (*i.e.*, the “caller  
 27 identifier” or “participant identifier”) to locate additional data (*i.e.*, the “caller dialing profile” or  
 28 “participant profile”) are data-collection steps that can be performed in the human mind or by

consulting paper records. For example, a switchboard operator would receive a caller identifier (*i.e.*, the caller’s phone number) and locate additional data (*i.e.*, the caller’s local area for phone service) based on the area code of that identifier. Additional claimed steps analyze (“determining a match”) and classify (by comparison to classification criteria) the participant data, which are likewise steps that a person could perform mentally or with pen and paper. For example, a switchboard operator would determine whether the callee and the caller share the same local area code. Like data-gathering, analyzing and classifying the gathered data to make a routing determination is similarly abstract. *Elec. Power*, 830 F.3d at 1354 (“[A]nalyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category.”) (collecting cases). The remaining claimed steps involve generating additional data (the “routing message”) based on the analysis that could also be carried out using a pen and paper. Switchboard operators long ago recorded the routing information and communicated with the callers and callees when connecting the call (*e.g.*, “routing messages”). And presenting the “results of abstract processes of collecting and analyzing information” is “abstract as an ancillary part of such collection and analysis.” *Id.*

##### 5. The Asserted Claims Are Not Directed to Improving the Functioning of a Computer Itself.

The asserted claims do not improve computer functionality. The representative claims set forth conventional functions that involve collecting, analyzing, and generating conventional information regarding a communication and merely invoke computers or other tangible elements as a tool to carry out those functions.

For example, the “call controller” and “gateway” do not improve computer functionality. As explained above in Section III.A., the specification states that the call controller can be implemented as a module on a common computer system comprised of generic computer components (see pages 4-5 above). *See, e.g., Alice*, 134 S. Ct. at 2360 (finding a “communications controller” to be “purely functional and generic”). And the specification describes a gateway in general and functional terms as a piece of networking hardware to provide a communications path to the PSTN—*e.g.*, to carry audio to the call recipient (see pages 4-5 above). As in *TLI*

1 *Communications*, the “specification makes clear that the recited physical components merely  
 2 provide a generic environment in which to carry out the abstract idea” of determining how to route  
 3 the call based on the caller and callee information. 823 F.3d at 611; *see Accenture*, 728 F.3d at  
 4 1343 (invalidating claims “composed of generic computer components that would be present in  
 5 any general purpose computer,” such as a processor (“CPU”), memory (“ROM, RAM”), inputs and  
 6 outputs (“I/O Adapter”)).

7 To the extent the implementation of the abstract idea with modern computer tools is an  
 8 improvement, it is merely an improvement of the “existing technological process by allowing  
 9 automation of further tasks” and not an improvement of the way computers operate. *See*  
 10 *FairWarning*, 839 F.3d at 1095 (distinguishing cases, such as *McRO, Inc. v. Bandai Namco Games*  
 11 *Am., Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) and *Enfish*, where courts found patent eligibility because  
 12 of specific asserted improvements in computer technology).

13 The claims in this case are unlike those found to be patent eligible in previous cases, such  
 14 as *Enfish* and *McRO*. Here, the claims are directed to a routing determination without claiming a  
 15 new data structure or new computer architecture. *Cf. Enfish*, 822 F.3d at 1335-36. Unlike *McRO*,  
 16 the claims do not set out specific rules distinct from how humans have performed routing  
 17 determinations. *Cf. McRO*, 837 F.3d at 1313. Indeed, VoIP-Pal asserts that its patents “are utilized  
 18 *nearly every time a call is placed.*” *E.g.*, AT&T ECF No. 3-21 at 2 (emphasis added). Accordingly,  
 19 the asserted claims are directed to an abstract idea under *Alice* step one.

### 20 **C. *Alice* Step Two: The Asserted Claims Lack an Inventive Concept**

21 Because the asserted claims of the ’815 and ’005 patents are directed to an abstract idea,  
 22 those claims are not patent eligible unless the Court finds an “inventive concept” under the second  
 23 step in the *Alice* framework. But whether considered individually or as an ordered combination,  
 24 the asserted claims contain only well-known, routine, and conventional functionality that does not  
 25 amount to significantly more than the abstract idea itself. *See Alice*, 134 S. Ct. at 2355. Although  
 26 the Federal Circuit has held that *Alice* step two may be based on underlying facts, such as whether  
 27 a claim element is well-understood, routine, and conventional, there is no question of fact here that  
 28 prevents resolution at the pleading stage. The specification here admits that the claim elements are

1 well-understood, routine, and conventional, and the asserted claims do not incorporate what the  
2 specification purports as benefits over the prior art. *See* Section III above.

3 **1. No Individual Limitation in the Claims Supplies an Inventive**  
4 **Concept.**

5 Assessed individually, the limitations of the asserted claims merely reflect at most generic  
6 computer implementation of the abstract idea. Representative multi-network claim 1 of the '815  
7 patent recites steps of “locating” information, “classifying” a call according to criteria, and  
8 producing a “routing message” based on the classification. Those all represent well-understood,  
9 routine, and conventional functions. Likewise, representative single-network claim 74 of the '005  
10 patent recites steps that include “locating” information, “producing a first network routing  
11 message” when a criterion is satisfied, and “producing a second network routing message” when a  
12 second criterion is satisfied, which are all routine and generic computer functions.

13 Locating information is not an inventive concept. *See, e.g., CyberSource*, 654 F.3d at 1372  
14 (holding that step requiring “obtaining information” can be performed by a human reading that  
15 information). Receiving and using one type of data to locate another type of data amounts to an  
16 “insignificant data-gathering step[] and thus add[s] nothing of practical significan[ce] to the  
17 underlying abstract idea.” *Ultramercial*, 772 F.3d at 716 (internal quotation marks and citations  
18 omitted).

19 Classifying information is not an inventive concept. *See, e.g., Symantec*, 838 F.3d at 1321;  
20 *Accenture*, 728 F.3d at 1345 (finding “set of rules” applied to database of tasks contained only  
21 “generalized software components arranged to implement an abstract concept on a computer”).  
22 Indeed, the specification teaches that existing VoIP systems already aggregated information,  
23 including routing tables, and used that information to route calls within or between public and  
24 private networks. '005 patent at 1:20-44.

25 Producing routing instructions as a result of classifying information is not an inventive  
26 concept. After determining how to route a communication, the determination must be  
27 communicated to whatever effects the routing. Therefore, a routing message is necessarily part of  
28 the routing process. Furthermore, the claim requires nothing non-generic about the message itself:

1 long ago, humans produced such messages, for example, when verbally relaying information to the  
 2 caller or callee or to other operators, or when recording information, such as the various routes to  
 3 the desired switchboard for routing the call. And as the Federal Circuit has held, “receiv[ing] and  
 4 send[ing] information over a network . . . is not even arguably inventive.” *buySAFE*, 765 F.3d at  
 5 1355.

6 The recited components that carry out the claimed functions are generic and conventional  
 7 computer components or other tangible elements, which makes sense since the specification  
 8 describes no novel data structures or computer components. A packet switched network is an “IP  
 9 network.” ’005 patent at 1:27-33. The “controller” is a call controller, which may be a module on  
 10 a “common computer system” that has generic computer components including a microprocessor,  
 11 program memory, and an I/O port (*e.g.*, *id.* at 13:20-22, 16:4-17:13, Fig. 4), and the program  
 12 memory includes blocks of code for directing microprocessor to carry out various functions of the  
 13 call controller (*id.* at 16:36-38). The specification describes a “gateway” in general and functional  
 14 terms as a piece of networking hardware used by well-known suppliers such as Sprint, Telus, and  
 15 Shaw to provide a communications path to the PSTN—*e.g.*, to carry audio to the call recipient.  
 16 *E.g.*, *id.* at Fig. 1 (item 20), 1:67-2:2, 3:67-4:2, 14:25-31, 16:4-27, 21:12-14, 24:66-25:4, 27:10-35;  
 17 Section III.A. (explaining the relevant passages of the specification). Additionally, private and  
 18 public networks were well-known. *E.g.*, ’005 patent at 1:20-33. The specification also teaches that  
 19 existing VoIP systems already aggregated information, including routing tables, and used that  
 20 information to route calls within or between public and private networks. ’005 patent at 1:15-39.  
 21 Put simply, there is nothing inventive about the individual claimed limitations—they each recite  
 22 admittedly well-known, routine, and conventional functionality.

23 The asserted claims are similar to the claims that the Federal Circuit held invalid under  
 24 Section 101 in *Electric Power Group*:

25 More particularly, a large portion of the lengthy claims is devoted to enumerating  
 26 types of information and information sources available within the power-grid  
 27 environment. ***But merely selecting information, by content or source, for***  
 28 ***collection, analysis, and display does nothing significant to differentiate a process***  
***from ordinary mental processes, whose implicit exclusion from § 101 undergirds***  
***the information-based category of abstract ideas.***

1 The claims in this case do not even require a new source or type of information, or  
2 new techniques for analyzing it . . . .

3 Nothing in the claims, understood in light of the specification, requires anything  
4 other than off-the-shelf, conventional computer, network, and display technology  
5 for gathering, sending, and presenting the desired information .... We have  
6 repeatedly held that such invocations of computers and networks that are not even  
7 arguably inventive are “insufficient to pass the test of an inventive concept in the  
8 application” of an abstract idea.

9 830 F.3d at 1354-55 (emphasis added). The same is true here. The claim elements describe in  
10 high-level terms (*e.g.*, “classification criteria”) the generic classification of calls and  
11 communications by way of collecting information, analyzing it, and outputting a result that reflects  
12 ““well-understood, routine, conventional activit[ies]” previously known to the industry” and  
13 therefore cannot provide an inventive concept. *Twilio, Inc. v. TeleSign Corp.*, 249 F. Supp. 3d  
14 1123, 1149 (N.D. Cal. 2017) (citing *Alice*, 134 S. Ct. at 2359).

## 15 **2. The Claims Lack an Inventive Concept When Considered as an** 16 **Ordered Combination.**

17 Considering the representative claims as an ordered combination also fails to yield an  
18 inventive concept that transforms the abstract idea into a patent-eligible invention. The claims lack  
19 any “non-conventional and non-generic arrangement of known, conventional pieces” that could  
20 suggest an inventive concept. *See Two-Way Media*, 874 F.3d at 1339 (internal citation omitted).  
21 In *Two-Way Media*, the claims “uses a conventional ordering of steps—first processing the data,  
22 then routing it, controlling it, and monitoring its reception—with conventional technology to  
23 achieve its desired result.” *Id.* VoIP-Pal’s asserted claims set forth a conventional arrangement by  
24 which information about the originator of the communication (*e.g.*, a caller) is located in the  
25 “locating” step, and that information is used for “producing” network routing messages. Locating  
26 information, analyzing the information, and outputting a result of the analysis is a conventional  
27 order of steps. The ordered combination, whether implemented on a computer or not, adds nothing  
28 “because it follows from the underlying idea” of determining where to route communications using  
information about the participants. *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F.  
App’x 988, 993 (Fed. Cir. 2014) (unpublished).

1 Unlike the claims at issue in *DDR Holdings*, VoIP-Pal’s asserted claims are not necessarily  
 2 rooted in computer technology to overcome a problem specifically arising in the realm of computer  
 3 networks. *See* 773 F.3d at 1257. Rather, they are directed to conventional methods and systems  
 4 for routing communications, using generic computers as tools, and reciting nothing transformative  
 5 to give rise to an inventive concept. And unlike the claims at issue in *BASCOM*, VoIP-Pal’s claims  
 6 do not involve any unconventional or non-generic arrangement of components. 827 F.3d at 1350.  
 7 To the contrary, as explained above with respect to claim elements considered as an “ordered  
 8 combination,” the exemplary claims include only a conventional and generic arrangement of  
 9 components that carry out a sequence of steps that is both conventional and dictated by the need to  
 10 analyze information before classifying it and producing the results of the classification.

11 **D. The Dependent Claims Fail for the Same Reasons as the Independent Claims.**

12 Although the asserted dependent claims add limitations, they add nothing inventive that  
 13 would alter the *Alice* analysis. Some dependent claims require reformatting the callee identifier  
 14 using a pre-defined digit format. But “employ[ing] mathematical algorithms to manipulate existing  
 15 information to generate additional information is not patent eligible.” *Digitech Image Techs., LLC*  
 16 *v. Elec. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). Certain dependent claims require  
 17 the caller or callee identifier (first or second participant identifier) to be a telephone number or  
 18 username. Processing caller identifiers including a telephone number or username were performed  
 19 by human operators, and so were “well-understood, routine, and conventional activities previously  
 20 known to the industry.” *Content Extraction*, 776 F.3d at 1347-48. Likewise, communicating the  
 21 routing message to a call controller (*e.g.*, another operator) or transmitting the routing message is  
 22 routine activity performed by human switchboard operators decades ago. *See id.* And sending a  
 23 message over a network “is not even arguably inventive.” *buySAFE*, 765 F.3d at 1355.

24 Other claims add minor details about the technological environment, such as adding  
 25 processors, specifying that one network is the Internet, limiting the technical environment to voice-  
 26 over-IP, or adding additional classification criteria. But those claims merely “‘attempt[] to limit  
 27 the use’ of the abstract [] idea ‘to a particular technological environment,’ which has long been held  
 28 insufficient to save a claim in this context.” *buySAFE*, 765 F.3d at 1355 (citations omitted).



1 Because all asserted claims of the Asserted Patents are directed to an abstract idea, and no claim  
2 adds any inventive concept, all asserted claims are patent ineligible.

3 **E. Allegations in Complaints Reciting Improvements over the Prior Art Do Not**  
4 **Save the Asserted Claims.**

5 VoIP-Pal's Third Amended Complaints against Verizon and AT&T allege further purported  
6 advantages of the asserted invention over the prior art, such as that the purported inventions provide  
7 benefits that include "user-specific calling," "transparent routing," and "network resiliency."  
8 AT&T ECF No. 59 ¶ 11. As the Federal Circuit has noted with alleged technical improvements in  
9 other cases, however, the specification of the Asserted Patents is "wholly devoid of details which  
10 describe *how* this is accomplished." *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1346  
11 (Fed. Cir. 2018) (emphasis in original). But even if disclosed in the specification, none of the  
12 asserted claims recite the purported benefits. *Synopsys, Inc.*, 839 F.3d at 1149 ("[W]e have held  
13 that complex details from the specification cannot save a claim directed to an abstract idea that  
14 recites generic computer parts.") (citing *Accenture*, 728 F.3d at 1345); *Symantec*, 838 F.3d at 1321-  
15 22 ("The district court erred in relying on the technological details set forth in the patent's  
16 specification and not set forth in the claims to find an inventive concept."). Those purported  
17 benefits therefore have no bearing on the patent-eligibility of the asserted claims.

18 **VI. CONCLUSION**

19 For the foregoing reasons, Defendants respectfully request that the Court dismiss with  
20 prejudice all of VoIP-Pal's claims regarding the '815 and '005 patents against Defendants.  
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